

SPECIFICATION

INFORMATION TRANSACTING AND UPDATING MECHANISM

BACKGROUND OF THE INVENTION

1. Field of The Invention

[0001] The present invention relates to an information transacting and updating mechanism between remote parties, especially an information transacting and updating mechanism utilizes decomposing and packing techniques for speeding transfer and update of data between the remote parties.

2. The Prior Art

[0002] In the internet era, data sharing is important in different applications such as the on-line game, the net conference, and the supply chain because users of the above applications need to know the updated data from others as soon as possible. Conventionally, the updated data of a first party needs to be transferred to a second party for immediate reference. Similarly, the updated data of the second party may have to be transferred to the first party for immediate reference. For transferring updated data between two parties, a large amount of images, data frames, and data have to be transferred and duplicated between the two parties.

1977-1978 1978-1979 1979-1980 1980-1981 1981-1982 1982-1983 1983-1984 1984-1985 1985-1986 1986-1987 1987-1988 1988-1989 1989-1990 1990-1991 1991-1992 1992-1993 1993-1994 1994-1995 1995-1996 1996-1997 1997-1998 1998-1999 1999-2000 2000-2001 2001-2002 2002-2003 2003-2004 2004-2005 2005-2006 2006-2007 2007-2008 2008-2009 2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 2016-2017 2017-2018 2018-2019 2019-2020 2020-2021 2021-2022 2022-2023 2023-2024 2024-2025 2025-2026 2026-2027 2027-2028 2028-2029 2029-2030 2030-2031 2031-2032 2032-2033 2033-2034 2034-2035 2035-2036 2036-2037 2037-2038 2038-2039 2039-2040 2040-2041 2041-2042 2042-2043 2043-2044 2044-2045 2045-2046 2046-2047 2047-2048 2048-2049 2049-2050 2050-2051 2051-2052 2052-2053 2053-2054 2054-2055 2055-2056 2056-2057 2057-2058 2058-2059 2059-2060 2060-2061 2061-2062 2062-2063 2063-2064 2064-2065 2065-2066 2066-2067 2067-2068 2068-2069 2069-2070 2070-2071 2071-2072 2072-2073 2073-2074 2074-2075 2075-2076 2076-2077 2077-2078 2078-2079 2079-2080 2080-2081 2081-2082 2082-2083 2083-2084 2084-2085 2085-2086 2086-2087 2087-2088 2088-2089 2089-2090 2090-2091 2091-2092 2092-2093 2093-2094 2094-2095 2095-2096 2096-2097 2097-2098 2098-2099 2099-2100 2100-2101 2101-2102 2102-2103 2103-2104 2104-2105 2105-2106 2106-2107 2107-2108 2108-2109 2109-2110 2110-2111 2111-2112 2112-2113 2113-2114 2114-2115 2115-2116 2116-2117 2117-2118 2118-2119 2119-2120 2120-2121 2121-2122 2122-2123 2123-2124 2124-2125 2125-2126 2126-2127 2127-2128 2128-2129 2129-2130 2130-2131 2131-2132 2132-2133 2133-2134 2134-2135 2135-2136 2136-2137 2137-2138 2138-2139 2139-2140 2140-2141 2141-2142 2142-2143 2143-2144 2144-2145 2145-2146 2146-2147 2147-2148 2148-2149 2149-2150 2150-2151 2151-2152 2152-2153 2153-2154 2154-2155 2155-2156 2156-2157 2157-2158 2158-2159 2159-2160 2160-2161 2161-2162 2162-2163 2163-2164 2164-2165 2165-2166 2166-2167 2167-2168 2168-2169 2169-2170 2170-2171 2171-2172 2172-2173 2173-2174 2174-2175 2175-2176 2176-2177 2177-2178 2178-2179 2179-2180 2180-2181 2181-2182 2182-2183 2183-2184 2184-2185 2185-2186 2186-2187 2187-2188 2188-2189 2189-2190 2190-2191 2191-2192 2192-2193 2193-2194 2194-2195 2195-2196 2196-2197 2197-2198 2198-2199 2199-2200 2200-2201 2201-2202 2202-2203 2203-2204 2204-2205 2205-2206 2206-2207 2207-2208 2208-2209 2209-2210 2210-2211 2211-2212 2212-2213 2213-2214 2214-2215 2215-2216 2216-2217 2217-2218 2218-2219 2219-2220 2220-2221 2221-2222 2222-2223 2223-2224 2224-2225 2225-2226 2226-2227 2227-2228 2228-2229 2229-2230 2230-2231 2231-2232 2232-2233 2233-2234 2234-2235 2235-2236 2236-2237 2237-2238 2238-2239 2239-2240 2240-2241 2241-2242 2242-2243 2243-2244 2244-2245 2245-2246 2246-2247 2247-2248 2248-2249 2249-2250 2250-2251 2251-2252 2252-2253 2253-2254 2254-2255 2255-2256 2256-2257 2257-2258 2258-2259 2259-2260 2260-2261 2261-2262 2262-2263 2263-2264 2264-2265 2265-2266 2266-2267 2267-2268 2268-2269 2269-2270 2270-2271 2271-2272 2272-2273 2273-2274 2274-2275 2275-2276 2276-2277 2277-2278 2278-2279 2279-2280 2280-2281 2281-2282 2282-2283 2283-2284 2284-2285 2285-2286 2286-2287 2287-2288 2288-2289 2289-2290 2290-2291 2291-2292 2292-2293 2293-2294 2294-2295 2295-2296 2296-2297 2297-2298 2298-2299 2299-2300 2300-2301 2301-2302 2302-2303 2303-2304 2304-2305 2305-2306 2306-2307 2307-2308 2308-2309 2309-2310 2310-2311 2311-2312 2312-2313 2313-2314 2314-2315 2315-2316 2316-2317 2317-2318 2318-2319 2319-2320 2320-2321 2321-2322 2322-2323 2323-2324 2324-2325 2325-2326 2326-2327 2327-2328 2328-2329 2329-2330 2330-2331 2331-2332 2332-2333 2333-2334 2334-2335 2335-2336 2336-2337 2337-2338 2338-2339 2339-2340 2340-2341 2341-2342 2342-2343 2343-2344 2344-2345 2345-2346 2346-2347 2347-2348 2348-2349 2349-2350 2350-2351 2351-2352 2352-2353 2353-2354 2354-2355 2355-2356 2356-2357 2357-2358 2358-2359 2359-2360 2360-2361 2361-2362 2362-2363 2363-2364 2364-2365 2365-2366 2366-2367 2367-2368 2368-2369 2369-2370 2370-2371 2371-2372 2372-2373 2373-2374 2374-2375 2375-2376 2376-2377 2377-2378 2378-2379 2379-2380 2380-2381 2381-2382 2382-2383 2383-2384 2384-2385 2385-2386 2

SUMMARY OF THE INVENTION

[0003] A primary purpose of the present invention is to provide an information transacting mechanism between an information provider and a customer for more effectively transferring and updating the required information.

[0004] A secondary purpose of the present invention is to provide an information transacting mechanism between an information provider and a customer for selectively limiting the authority of the customer.

[0005] One aspect of the present invention is to provide an information transacting mechanism between an information provider and a customer. The information transacting mechanism comprises a host database, an original information box extracted from the host database and transferred to the customer via e-mail. A first transacted information

box is modified from the original information box by the customer and then sent to the provider via e-mail. A second transacted information box is modified from the first transacted information box by the provider and then sent to the customer via e-mail.

[0006] Another aspect of the present invention is to provide an information transacting mechanism between an information provider and a customer. The information transacting mechanism comprises an information server controlled by the information provider. An original information box is extracted from the information server. A tool server is installed with a plurality of tools by an application service provider and provides tools when instructed by the application service provider. A tool-added information box is resulted by packing the original information box with tools of the tool server and sent to the customer for the customer to access the data contained in the tool-added information box.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] Fig. 1A is a schematic view in accordance with the present invention showing a relational database being decomposed into several partitions;

[0008] Fig. 1B is a schematic view in accordance with the present

invention showing a set of tools stored in a tool server being decomposed into several tool modules;

[0009] Fig. 1C is a schematic view in accordance with the present invention showing partitions extracted from the relational database and tool modules decomposed from the tool server being encapsulated in a box;

[0010] Fig. 2 is a first embodiment of an information transacting mechanism between a host database and a remote end user in accordance with the present invention;

[0011] Fig. 3 is a schematic data frame used in an original information box of Fig. 2;

[0012] Fig. 4 is a second embodiment of an information transacting mechanism in accordance with the present invention;

[0013] Fig. 5 is a third embodiment of an information transacting mechanism in accordance with the present invention; and

[0014] Fig. 6 is a fourth embodiment of an information transacting mechanism in accordance with the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0015] Referring to Fig. 1A, a relational database 15 may be virtually

decomposed into several partitions 16 according to predetermination of an information provider. Referring to Fig. 1B, a set of tools 17 for providing accessing functions to the partitions 16 such as “view”, “delete”, “update” may be physically decomposed into respective functional tool components 18. Referring to Fig. 1C, the database partitions 16 and the functional tool components 18 may be selectively packed in a box 19 so that the specific database partitions 16 may be configured with specific functional tool components 18 allowing a customer to access the data contained therein upon receipt of the box 19. This is the software decomposition technique used in the present invention and it results in different embodiments described subsequently.

[0016] Referring to Fig. 2, a first embodiment of an information transacting mechanism between a host database and a remote end user is disclosed. The information transacting mechanism comprises a host database 10 installed in a server 100 which is maintained by an information provider 1 (herein simplified as provider). An original information box 11 is extracted from the host database 10 and transferred to a customer 14 via e-mail. The original information box 11 is a subset of the host database 10. The original information box 11 is a practical guide for the customer 14 to input his customized data. With the

customized data, the provider 1 may correspondingly “answer” questions of the customer. When the customer receives the original information box 11, he/she can input specific data to replace corresponding original data without changing the format of the original information box 11. The specific data inputted by the customer 14 are called modified portion hereinafter. Therefore, a first transacted information box 12 is modified from the original information box 11 by the customer 14 according to his/her specific needs and then sent to the provider 1 via e-mail. A second transacted information box 13 is modified from the first transacted information box 12 by the provider 1 and then sent to the customer 14 by e-mail. The provider 1 provides the requested information in the second transacted information box 13 to the customer 14 according to the modified portion inputted by the customer 14 thereby answering the customer’s requirement.

[0017] Referring to Fig. 3, the original information box 11 contains many data sections 22, for example, DATA SECTION 1, DATA SECTION 2, and DATA SECTION 3, and each data section 22 is associated with an identification tag 21, for example, TAG 1, TAGE 2, and TAG 3. These tags 21 are logic flags which indicate whether the corresponding data sections 22 have been rewritten.

[0018] The provider 1 will know the modified portions based on the identification tags 21, upon receipt of the first transacted information box 12. The provider 1 will modify the data stored in the first transacted information box 12 according to the modified data inputted by the customer 14. Therefore, answers inputted by the provider 1 corresponding to the inputted data by the customer 14 are together finalized in the second transacted information box 13 and shared by the provider 1 and the customer 14. With this mechanism, an interactive database updating can be performed between the provider 1 and the customer 14.

[0019] A second embodiment is modified from the first embodiment and shown in Fig. 4. The mechanism comprises an information server 31 which is controlled by an information provider. An original information box 33 is extracted from the information server 31 which only contains data while not contains necessary tools to access the data. The original information box 33 is packed with tools by a tool server 34 owned by an application service provider and changed to be a tool-added information box 35 and sent to a customer 36 via e-mail from the application service provider. Specifically, the tool server 34 may pack different tools into the original information box 33 based on instructions

from the application service provider. For example, the tool server 34 may comprise a read tool, a delete tool, a write tool and an authority setting tool. The read tool allows the customer 36 to read the information contained in the original information box 33. The delete tool allows the customer 36 to delete information contained in the original information box 33. The write tool allows the customer 36 to modify the information contained in the original information box 33. The authority setting tool allows the customer 36 to set authority levels for a subsequent customer (not shown) to either read-only or modify the data contained in the tool-added information box 35 passed by the previous customer 36.

[0020] A transacted information box 37 is resulted after the customer 36 has modified the data contained in the tool-added information box 35. The transacted information box 37 is then sent back to the information server 31 for updating via e-mail. The information server 31 has the right to determine whether to accept the update or not. This updating mode is called a copied mode.

[0021] Referred to Fig. 5, a third embodiment of the mechanism is used in a web site and modified from the second embodiment. The mechanism comprises an information server 41 controlled by an information provider (not shown). Different original information boxes

43 are extracted from the information server 41 and each specific original information box 43 only contains data while not contains necessary tools to access the data. Each original information box 43 contains specific information according to predetermination of the information provider. Each original information box 43 is packed with tools by a tool server 44 owned by an application service provider and changed to be a tool-added information box 45 and sent to a web server 46 via internet. Different customers 47 may visit a web page (not shown) associated with the web server 46 thereby selectively obtaining the tool-added information box 45 meeting respective needs. The customers 47 can modify the data based on the tools provided in the information box 45 and the transacted data in each information box 45 may be sent back to the information server 41 for updating.

[0022] In this embodiment, there are two modes for updating the data of the information server 41. The first mode is called a master-slave mode by which the information server 41 will be automatically updated whenever it detects and receives the transacted data. The second mode is called a replication mode by which the transacted data performed by different customers are put into a queue first and then update the information server 41 sequentially.

[0023] The mechanism of Fig. 5 can be further extended into a fourth embodiment used for a web portal run by an internet content provider. Referring to Fig. 6, a portal 51 is additionally interconnected between the web server 46 and the customers 47 of Fig. 5, while other functional components and their relations are identical to those described in Fig. 5 thus the description thereof is omitted herein. This mechanism can serve for those customers not aware of the web server 46 but only aware of the portal 51. Therefore, the internet content provider owning the portal 51 can utilize this mechanism for practicing a business model. For example, the internet content provider can link to different kinds of information servers via this mechanism thereby providing a platform for categories of information services.

[0024] While the present invention has been described with reference to a specific embodiment, the description is illustrative of the invention and is not to be construed as limiting the invention. Therefore, various modifications to the present invention can be made to the preferred embodiment by those skilled in the art without departing from the true spirit and scope of the invention as defined by the appended claims.